

Amendments to the Specification:

Please delete the paragraph beginning at page 1, line 21, which starts with “[ADI1].”

Please replace the paragraph beginning at page 2, line 24, which starts with “[Moh99],” with the following amended paragraph:

[Moh99] ~~Mohamadrzea~~ Mohamadreza Marandian Hagh, “Design of turbo ~~trellis~~ coded modulations for bandwidth limited channels”, M.S. thesis, University of Tehran, March 1999.

Please replace the paragraph beginning at page 20, line 7, which starts with “There are many different known iteration stopping algorithms,” with the following amended paragraph:

There are many different known iteration stopping algorithms such as [ADI1]:

Please replace the paragraph beginning at page 22, line 16, which starts with “The degradation in overall performance of the TC decoder,” with the following amended paragraph:

The degradation in overall performance of the TC decoder depends on the accuracy of the backward metric values at the end of the tail window, and the complexity overhead depends on the ratio of tail window length to sliding window length. The total required memory size depends on the length of the tail window plus sliding window, which is desired to be small. The Performance comparison of two windowing algorithms shows that in high signal to noise ratios, the first algorithm achieves a slightly better performance in both bit and frame error rates. In both algorithms, the guard window size is an important parameter that strongly affects the overall performance of the system. However, a long guard window size may slightly increase complexity of the decoder, although this increase in complexity is negligible. In general, the first algorithm seems to

be more convenient for DSP implementation in 3GPP systems [Moh02]. According to available memory size in most DSPs and considering FER performance and complexity overhead, $W=100$ and $WT=10$ appear to be good choices. When $W=100$ is chosen for the turbo decoder in 3GPP standard, 1600 bytes of memory for backward metric values are required. Also, the sliding window algorithm must be applied at least for interleaver sizes larger than $N=150$. $W=128$ is an appropriate choice for fixed-point implementations [ADH].